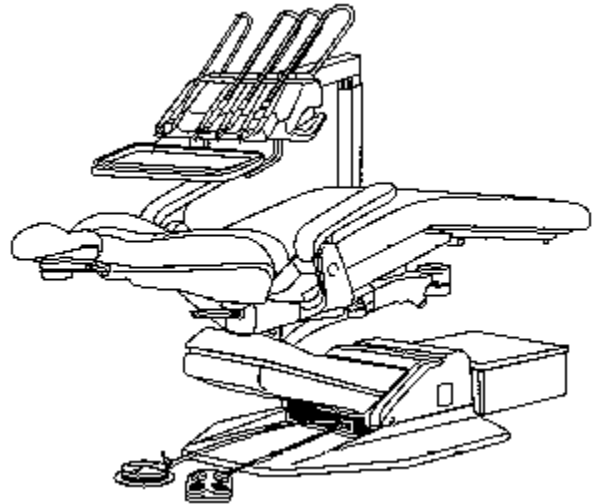


#### 48-29 A-dec Radius 2132 Continental Dental Unit (Project 94-72) (4/96)

The A-dec Radius 2132 Continental dental unit comes standard with the Cascade handpiece control system for three handpieces and an autoclavable three-way syringe. It is attached to either the Decade 1021 chair (shown above) or the Cascade 1040 chair via the Radius hub that is designed to allow rotation of the unit arm for more effective positioning control and for easy tool-less right- to left-hand conversion. Also standard is a toggle-activated control head air brake, wet/dry disc foot control, arm-mounted instrument tray holder, and a large stainless steel floor box containing air and water filters, pressure regulators, and shut-off valves. The unit evaluated by DIS was configured with the following options: chair touch pad, control head air brake incorporated into the positioning handle, intraoral light source and bulb-contained fiber-optic handpiece tubing, Cascade separate water system, extra duplex outlet, and a 300-watt power supply. The Continental delivery system is purported to reduce the chance of percutaneous injury and to be more ergonomically friendly to the operator. The unit can be configured for either 110 or 220 volts. The Radius 2132 Continental unit is UL listed, CSA and ETL certified, and ADA accepted.



#### Manufacturer:

A-dec, Inc.  
2601 Crestview Drive  
Newberg, OR 97132  
(800) 547-1883  
(503) 538-9471  
(503) 537-2702 (FAX)

#### Suggested Prices:

	Retail	Gov't
A-dec Radius 2132 Continental Unit	\$5210.00	\$2839.00
Chair Touch Pad	\$260.00	\$142.00
Handle and Push-Button Air Brake	\$130.00	\$71.00
Intraoral Light Source (for two handpieces)	\$335.00	\$183.00
Fiber-optic Handpiece Tubing	\$200.00	\$109.00
Cascade Self-Contained	\$108.00	\$59.00

Water System		
Extra Duplex Outlet	\$120.00	\$65.00
150-watt Power Supply	\$230.00	\$125.00
300-watt Power Supply	\$550.00	\$300.00

**ADVANTAGES:**

- + Meets majority of military specifications for dental treatment units.
- + Smooth, overall design facilitates asepsis.
- + Radius design increases positioning options.
- + Reported to decrease percutaneous injuries.
- + Radius hub design facilitates right- to left-hand conversion without tools.
- + Radius design presents a clean and uncluttered operatory appearance.
- + Two intensity-level fiber-optic system is designed to increase bulb life and reduce heat buildup in the handpiece hose coupler.
- + Control head air brake is incorporated into the positioning handle.
- + Has touch pad control for chair functions.
- + Separate water system is factory installed and easy to maintain.
- + UL listed, ADA accepted, and certified by CSA and ETL.
- + Well-illustrated operation, maintenance, and installation manuals.

**DISADVANTAGES:**

- The intensity of the fiber-optic system is not operator adjustable.
- Exact positioning of control head is required to both activate handpiece and reach oral cavity.
- Clinical evaluators felt that positioning the unit controls on side of control head made them difficult to use.
- Operatory light may interfere with folding levers.
- Control head unit cover requires removal of five screws for service access.
- Chair-mounted operatory light and Radius unit support arms interfere with each other.

**SUMMARY AND CONCLUSIONS:**

The A-dec Radius 2132 Continental dental unit met the majority of the requirements on the DIS Dental Treatment Unit Checklist as well as all requirements of ADA specification No. 47 for dental units. The Radius concept has been designed to facilitate increased flexibility in unit positioning as well as right- to left-hand conversion without tools. The quality of materials and construction is excellent and its smooth design and minimal articulations facilitate asepsis. The "folding lever" or "buggy whip" delivery system is reported to reduce percutaneous injuries as well as be more ergonomically advantageous to the operator. The factory-installed A-dec fiber-optic light system is designed to reduce light intensity by 30% when the handpiece is not actually in operation. This is purported to reduce heat buildup in the handpiece coupler and increases bulb life. However, the fiber-optic system intensity is not readily operator adjustable. The "folding lever" mechanism performed flawlessly but clinical evaluators had difficulty positioning the control head so that they could reach the oral cavity and activate the handpiece at the same time. Some evaluators noted interference of the folding levers with the overhead light and also noted difficulty in positioning the Radius unit when configured with the chair-mounted light. Evaluators rated the unit "Good" to "Excellent" when compared to other units they had used, but only 40% said they would buy the unit. The clinical evaluators either liked the unit or they disliked it; there was no middle ground. Although the "folding lever" design may reduce injuries, one must weigh the disadvantages of the delivery system against the possible advantages. The **A-dec Radius 2132 Continental Dental Unit** is rated **Acceptable** for use by the federal dental services.